CASE

OF

CÆSAREAN SECTION.

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Isabella King, aged 23, four feet in height, had unfortunately become impregnated, and reached the full period of her gestation. She became an inmate of the St Nicholas Poorhouse a few months ago. On Tuesday, January 28, she was first taken in labour; the pains, though slight and distant, continued with some regularity until Thursday, 30th, when the waters came off. For the next two days she seems to have been pretty well, moving about, free from pain, and taking her food as usual. But, on the afternoon of Saturday, 1st February, the pains returned, and for a few hours were regular and increasing in severity. About midnight, as there appeared to have been little progress, and the presentation had not been made out, an opiate was given her, which procured some sleep. On Sunday forenoon, 2d February, I was requested to see her. Her very peculiar expression,—the flat nose, projecting forehead, large head,—with her diminutive stature, and stout, bent, muscular limbs, was very striking, and indicated great deformity; but, on examining her back in the erect position, I was agreeably surprised to find it so entirely free from any lateral curvature. The most noticeable feature here, was the great bend inwards at the loins —so that when she was lying on her back, my hand and arm could be passed quite across under her body almost without touching her. I learned that since the opiate she had slept a good deal, that the pains were very distant and slight, and that there had been none for two hours. Early in the morning she had a smart rigor; and meconium had been escaping with the pains in some quantity from the vagina. She had taken some breakfast with relish, had passed her urine regularly, and the bowels had freely acted: pulse calm.

On examination per vaginam, the sacral promontory first met the finger, right in the centre of the vagina, like a large tumour. The os uteri was well dilated, but its anterior lip was large, flabby, and soft. The presentation could only be felt by carrying the finger forward toward the pubis, and then, as it were, round behind the

promontory. The head was resting on the brim, and naturally placed. The patient was put under chloroform, and an attempt made to turn the child, as delivery I have found under deformity is so much easier in footling than in head presentations. With great difficulty my hand, closely compressed, passed through the brim, and reached as high as the abdomen of the child, but beyond this I could not by any allowable force pass it, as the uterus was strongly contracted around the body of the child. I attempted two or three times by steady pressure to insinuate my fingers through the contraction, but it did not relax in the slightest degree. I therefore withdrew my hand entirely from the uterus, and while doing so I felt for the funis, and found it passing through this hour-glass contraction, so compressed as to be flaccid and pulseless. This, with the free escape of the meconium following the rigor, was conclusive to my mind that the child was dead, and determined me at once to perform craniotomy, although I expressed to Mr Paterson, surgeon, who was then present, my doubts of its succeeding, from the very small space available in the antero-posterior diameter, which barely admitted my three fingers. The perforation was accomplished with difficulty, and that only by an assistant firmly pressing downwards and steadying the uterus, as the head passed up when any attempt was made to pierce the bone. Extraction was commenced and continued at intervals. The skull by various efforts was broken up, and no little care was requisite to prevent injury to the vagina in the removal of the loose pieces of bone. All the bulging parts of the cranium, including the orbits, were brought away at intervals, nothing being left but the base of the skull and a portion of the occipital bone; which was, however, loose. I attempted to change the position of the head so as to bring the face through, but failed. It had become now increasingly apparent that delivery could only be accomplished by the Cæsarean section. My friends Drs Ogston and Fiddes, whose assistance I had asked some hours before, having equally failed in their attempts, quite acquiesced in this opinion, and Dr Pirrie, whose opinion was also asked, at my request consented to perform the operation.

I may mention that the patient, notwithstanding her lengthened sufferings, continued remarkably composed. When free from the effects of chloroform, she made no complaint. She had taken during the day one or two teacupfuls of good beef-tea. She had no thirst. Her pulse did not exceed 100. There was no heat or dryness in the vagina, nor tenderness on pressing the abdomen, nor, in short, any of the evil consequences of protracted labour. And, except from the delay, she was in as favourable a condition as could well be for undergoing the severe operation which was contemplated. After some delay, all was in readiness. The patient was again put under chloroform, the bladder emptied, and she was then brought into a larger room, previously prepared by heating it for the purpose. The operation was performed in presence of Drs Ogston, Fiddes, Suther-

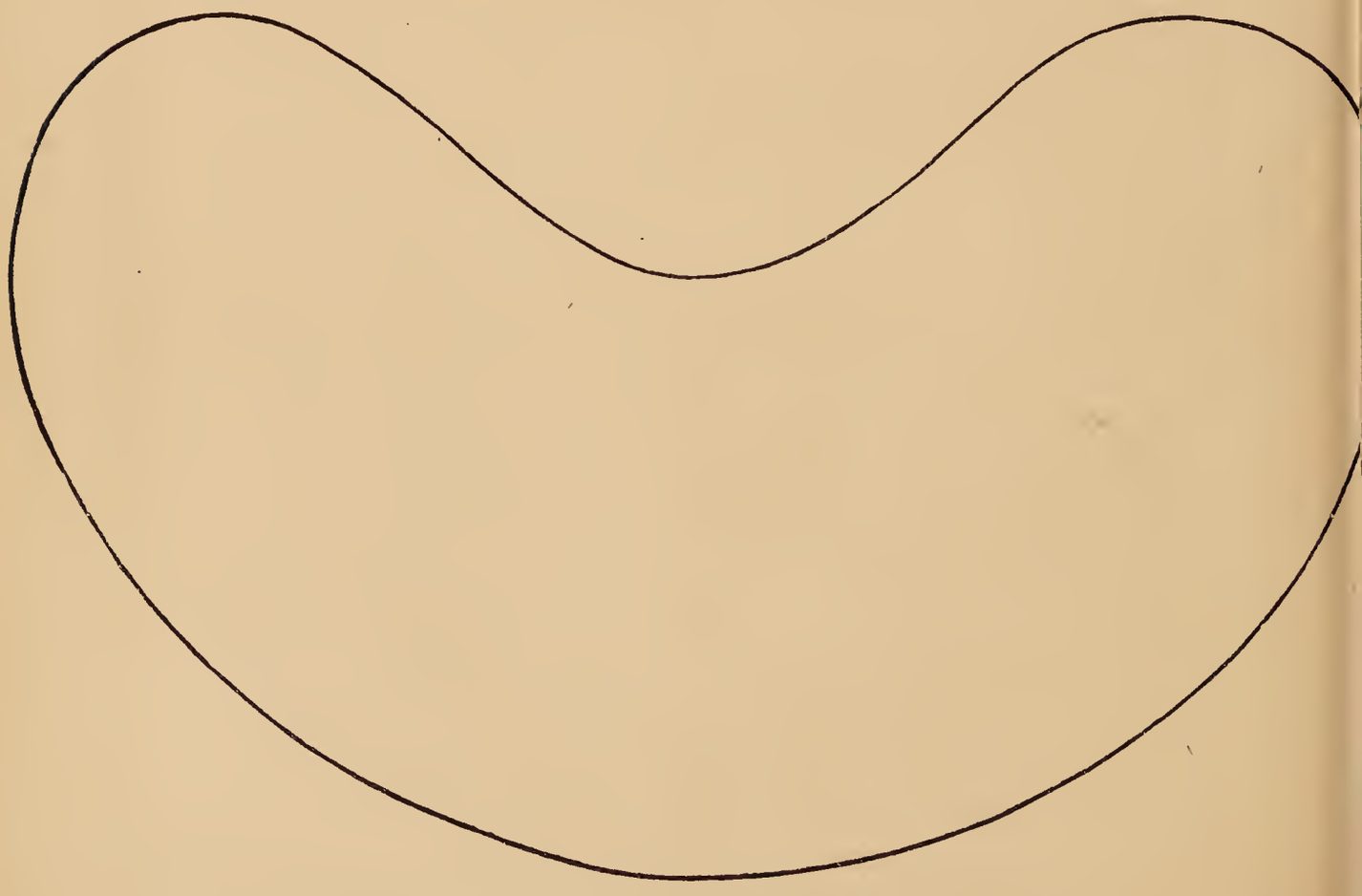
land, Paterson, and myself, with three assistants, Messrs M'Lagan, Paterson, and Mackie.

The abdominal walls being made tense, an incision was commenced a little below the umbilicus, in the situation of the linea alba, and carried downwards in a straight line to within an inch of the pubis; the various layers of tissue were cautiously cut; the peritoneum was punctured, and laid open to the same extent upon a director. The uterus now came into view, dark and livid: it was carefully opened, and the incision enlarged on the finger, upwards and downwards, but to a somewhat less extent than the external wound. The side of the child presented, which was readily lifted out by the arm and head. The hips and lower limbs not following, Dr Pirrie passed his hand, and detected a contraction in the uterus resisting the removal of the body: the same which I had noticed early in the day, when attempting to turn. The placenta was readily and speedily removed. There was no hæmorrhage; the only untoward circumstance was the escape of a considerable quantity of meconium from the child into the womb, as its nates were being freed from the constriction in the uterus. Only one knuckle of intestine twice showed itself, which was immediately replaced. The surface of the uterus, which speedily contracted, was lightly sponged, the wound in it put in apposition, and the external incision closed by seven ligatures of silver-wire. Adhesive plaister, compresses, and a broad binder completed the operation. To ensure contraction of the womb, the chloroform had been discontinued as soon as that organ was laid open. The patient was not, however, thoroughly awake until the operation and dressing had been completed. Some warm brandy and water was given her, which she almost immediately vomited; when two grains of solid opium were ordered at once, and one grain every four hours, with beef-tea and brandy at intervals.

The first night the woman slept a good deal; but everything was vomited, sometimes immediately, often not for an hour: hiccup had annoyed her. She had no pain in the abdomen, though occasionally she had pains in the back, like after-pains. Her pulse was exactly 100. She looked composed, and smiled on our entrance, on the following morning. Towards the afternoon of that day (Monday), the matter vomited became very dark, like coffee-grounds, and distinct indications of prostration appeared. She passed her urine naturally and in large quantity, and was anxious for food. Laudanum was substituted for the opium, but it was equally rejected. The compress and binder, with the lowest stitch, were removed, and tepid water-dressing substituted, and brandy or wine ordered throughout the night *ad libitum*. On the morning of the 4th, she was manifestly worse. Respiration was laboured, the retching and vomiting had continued, followed by exhaustion; there was no tympanitis, or much uneasiness in the abdomen; the pulse was rapid, and weak. At 3.10 P.M. she died, 43 hours after the operation.

On the day following the patient's death a post-mortem examination was made. The whole length of the body was exactly 4 feet. The head was that of a full-grown adult. The upper limbs measured 17 inches in length; the lower, 20 inches; the trunk, 21 inches. The edges of the wound of the abdomen were firmly adherent, so as not to separate on the removal of the ligatures: there was a very small quantity of thin bloody fluid effused within the cavity of the abdomen: some of the coils of the small intestines were a good deal injected. The uterus was large, and occupied the left side of the belly: the wound in it measured $2\frac{1}{2}$ inches: a clot of blood, about 4 fluid oz. in bulk, filled its cavity. From the appearance of the interior of the womb, the placenta had been attached to its upper and back part. The vagina contained some grumous blood, and showed a superficial rent, about 2 inches in length, extending from near the external orifice upwards on the right side.

The subjoined outline gives a correct representation of the size and shape of the brim of the pelvis.



The measurements of the pelvis at the brim were—

	Inches.
Antero-posteriorly,	2
Laterally, from ileum to ileum,	$4\frac{7}{8}$
Obliquely,	$4\frac{1}{2}$
Depth of pubis,	$1\frac{1}{4}$
Depth behind from promontory to the point of the coccyx,	$4\frac{1}{2}$
Outlet—	
Between the tuberosities of the ischia,	$3\frac{1}{4}$
From arch of pubis to point of the coccyx,	$3\frac{1}{2}$
From brim of pelvis to lowest point of the ischium,	3

The lumbar vertebræ formed nearly a right angle with the sacrum.

The infant extracted by the operation weighed 8 lbs., allowance being made for the absence of the brain and greater part of the bones of the head. Its measurements were—

	Inches.
Bi-parietal from one ear to the other,	4
Occipito-frontal,	4½
Occipito-mental,	5½
Nape of neck to root of nose,	4
Length of body,	18

Centre of body falling exactly at the navel.

Remarks.—We have, in the above details, another case added to the melancholy list of unsuccessful operations on the parturient female, and one corroborative of the fact, as noticed by Tyler Smith, that nature, when engaged in one important office, the absorption of tissue, cannot readily be made to undertake another equally important, that of restoration (under injury) to health.

On fully considering this case, I think that there cannot be a question but that delivery ought to have been prematurely induced, not with any view of saving the child, because no viable child could ever have passed through so limited a space, but solely with the view of saving the woman's life, as a fœtus at the sixth month would have been more easily brought away than one more advanced. But as I only saw her at the eleventh hour, when she was at her full time and actually in labour, regrets were then useless. A more important question, however, arises, was the subsequent treatment the most appropriate, in commencing by turning, and subsequently performing craniotomy, before resorting to the Cæsarean section? Of the advantages of turning, under deformity, as a substitute for craniotomy, I have a most decidedly favourable opinion. I have succeeded in several instances, where the child had in previous labours been destroyed, and with the satisfaction of saving more than one life. But even should the child's life not be saved, I consider that it is no small matter—no little consolation—to a mother to find that her infant, though dead born, has not been mutilated. The principle on which this operation is proposed, I need not stop to notice. We have the authority of Denman for asserting "that by turning the child the chance of saving its life is greater than can be gained by the use of any instrument," and Professor Simpson's arguments on this subject are so convincing as to seem to warrant the admission of this operation as an established one, under deformity, as a substitute for craniotomy and the long forceps. I therefore made the attempt, but finding that every effort was unavailing, and having sufficient evidence of the death of the child, I did not then hesitate to craniotomize. The difficulties here through every stage were very great; yet it is matter of no little comfort to me that, considering the repeated attempts made both by myself and my friends during the day to remove the head piecemeal, no more injury was done to the passages than the superficial rent at the lower part of the vagina. The uterus did not suffer at all, though there was a

source of constant anxiety lest the elongated lip should be included in any of our attempts; neither had the bladder, as the woman passed her urine freely and naturally after the removal of the child; nor was the promontory injured.

I have no doubt that there may be found some amongst the profession, who, with these pelvic measurements before them, will question the propriety of hysterotomy, and insist that craniotomy and evisceration ought to have succeeded, and perhaps may adduce cases in evidence. But I am quite satisfied that each case of extreme deformity must, in a great measure, be treated less on a general principle than on its own individual peculiarities, and that such and such measurement should not exclusively be held as indications for the operation, irrespective of collateral circumstances. In so far, however, as regards the measurements in this case, they correspond with those generally admitted as rendering the Cæsarean section justifiable and necessary. The antero-posterior diameter was but two inches, and although from ileum to ileum there was double that space, my decided impression is, that no increase laterally can make up for the loss in the conjugate diameter, and that, taking into account the large size of the child, and the impossibility of effecting any change in its position, continued attempts at farther demolition of its head, along with the time necessarily required, would have so increased the risk of injury to the mother, as to have irremediably sealed her fate. My only regret is that, being so nearly correct in my estimate of the space, I did not propose the final operation at an earlier period in the labour, when the woman's strength was entire, and before other means had been tried. Still the fearful mortality under even the most favourable circumstances, makes one shrink from proposing an operation of this nature until every other means have failed.